

REMARKS

The specification has been reviewed, and clerical errors of the specification have been amended.

In paragraph 2 of the Action, claims 1-8 were rejected under 35 U.S.C. 103(a) as being unpatentable over Elfving et al.

In view of the rejection, claims 1, 3-5, 7 and 8 have been cancelled, and new claims 9-13 have been filed.

As clearly recited in new claim 9, the invention is directed to a method for manufacturing a synthetic resin molding. In the method, a binder resin is affixed to thermal expansion microcapsules in a temperature such that the thermal expansion microcapsules do not expand to thereby form granulated microcapsules with an average particle diameter of 140-2,870 μm . The granulated thermal expansion microcapsules are mixed with a base resin, and a mixture of the granulated thermal expansion microcapsules and the base resin is molded in a mold.

In the invention, it is important that the thermal expansion microcapsules are granulated with the binder resin to form the granulated microcapsules with an average particle diameter of 140-2,870 μm (7-100 mesh) without pre-expansion. As a result, the granulated microcapsules can be well mixed with the base resin and can expand sufficiently in molding, so that the thick resin product can be formed without trouble.

In Elfving et al., a light weight object is prepared by calendering, injection molding and the like a resin of polypropylene and the like and thermally expandable microspheres including a thermoplastic polymer shell encapsulating a propellant. The expandable microspheres may be added directly to and mixed with powder or granules of the resin.

In the method of the invention, the binder resin is affixed to thermal expansion microcapsules in a temperature such that the thermal expansion microcapsules do not expand to thereby form

granulated microcapsules. In Elfving et al., the microspheres are simply mixed with the resin. Namely, the granulated microcapsules formed of the microcapsules and the binder resin are not formed in Elfving et al.

In the invention, the granulated microcapsules have an average particle diameter of 140-2,870 μm , i.e. 7-100 mesh, while the microcapsules before being granulated have an average diameter of 20-35 μm . In Elfving et al., the particular size of the granulated microcapsules of the invention is not disclosed or suggested.

In the invention, the granulated thermal expansion microcapsules are mixed with the base resin, and the mixture of the granulated thermal expansion microcapsules and the base resin is molded in a mold. Thus, the microcapsules can be well mixed with the base resin and expand in molding.

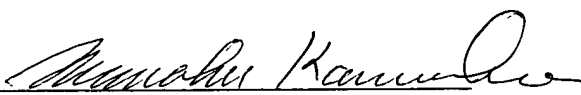
Elfving et al. does not disclose or even suggest the features of the invention.

Reconsideration and allowance are earnestly solicited.

A two month extension of time is hereby requested. A check in the amount of \$420.00 is attached herewith for the two month extension of time.

Respectfully Submitted,

KANESAKA AND TAKEUCHI

By 
Manabu Kanesaka
Reg. No. 31,467
Agent for Applicants

1423 Powhatan Street
Alexandria, VA 22314
(703) 519-9785